**ABSTRACT**

A communication network capable of dynamically setting hierarchical high order and low order paths between arbitrary nodes is implemented. In the communication network including

5    a plurality of nodes and a plurality of link groups connecting these nodes, a low order node having a switch for switching the low order path and a high order node having the switch for at least switching the high order path are provided as the plurality of nodes. The high order node further has a multiplexer for

10   multiplexing N (N is an integer of 2 or more) of the low order paths on one of the high order paths and a separator for separating one of the high order paths into N of the low order paths. The low order path is set between any two nodes and the high order path is set between any two high order nodes.